The Wind Energy Production Tax Credit For Continued Technology Improvement

In such an expedited mode as wind energy technology has been under since its inception only three or four decades ago, the research and development has not received the attention that it ordinarily would have received, such short cuts as making use of off-the-shelf components and hand-me-down aviation aerodynamics well known to have been accepted practice since day one. The frequent wind turbine manufacturer breakups and mergers in these early years is testimony enough of the difficulties found. This is short sightedness necessitated by the idealism outpacing the free flow of capital. So it is that not only are jobs threatened if favored tax treatment is denied but also the investors are chased away, unwilling to accept the risks.

As a small business, IntegEner-W in Tehachapi, California has assumed its own costs with little support in making good on a promise to use micro scale testing in the investigation of new ideas. Otherwise seen as a habit in need of being broken, the industry continues to leap directly into building only a large, single prototype before taking on serial production of new, higher rated systems. The devil take the hindmost, as the saying goes.

The environmental prerogatives are well enough understood as creating the incentives. What is not yet generally given credit is how something as basic as air can play so many tricks. "The behavior of fluids is in many respects very interesting and unexpected", said Richard Feynman, the Nobel prizewinner in Physics. It often appears to us in the work we do that what has been learned in aviation must be doubled again in going forward in the pursuit of wind energy.

Speaking of air as a substance, it is with excited and emotional rhetoric that our enterprise communicates what is plain fact. One cubic yard of still air has a mass weight of two pounds, the same as a quart of water. Air doesn't have to be moving to have weight. Thus one thousand cubic yards of air has a mass weight of two thousand pounds, or one ton. One thousand cubic yards is hardly the volume taken up by something less than a farmyard barn. Unseen, air has a presence not at all insubstantial.

So what is supported hereby in this testimony is a continuation of the wind energy development technology PTC. There is only one mistake that can be made – letting wind energy falter. Nothing else is of anywhere near the same gravity.

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